

WHAT IS CLAIMED IS:

1 1. A transceiver for use within a multi-tier system bus configuration
2 comprising:
3 means for independently receiving instructions via the system bus from one or more
4 devices connected to the system bus;
5 means for independently transmitting instructions via the system bus to one or more
6 devices connected to the system bus.

7 means for buffering instructions received via the system bus; and

8 means for buffering instructions transmitted via the system bus;

9 wherein said means for independently receiving instructions is configured to
10 discriminate between different types of input; and

11 wherein said means for independently transmitting is configured to interleave
12 instructions.

1 2. The transceiver of claim 1, wherein said means for transmitting is configured
2 to interleave instructions based upon instruction type.

1 3. The transceiver of claim 2, wherein said instructions are contained within
2 packets and said means for transmitting is configured to interleave instructions based upon
3 packet type.

1 4. The transceiver of claim 3, wherein said packets comprise direct memory
2 access (DMA) and control action (CA) packet types.

1 5. The transceiver of claim 1, wherein said means for receiving is configured to
2 discriminate between different types of input based upon received instruction type.

1 6. The transceiver of claim 5, wherein said input is contained within packets
2 and said means for receiving is configured to discriminate between different types of input
3 based upon packet type.

1 7. The transceiver of claim 6, wherein said packets comprise direct memory
2 access (DMA) packets and Control Action (CA) packet types.

1 8. The transceiver of claim 1, wherein said means for receiving is configured to
2 provide specialized control functions.

1 9. The transceiver of claim 8, wherein said specialized control functions
2 include: a reset function, a timer function, and a broadcast function.

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